

Survey and Manage Report – Terrestrial Wildlife and Invertebrates

Lower McCloud Fuels Reduction Project

USDA FOREST SERVICE, SHASTA-MCLOUD MANAGEMENT UNIT

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Summary

All project activities in the Lower McCloud Fuels Reduction Project are compliant with the 2001 ROD standards and guidelines and 2003 Annual Species Review list, and **are exempt under the 2006 Pechman exemptions – category D** (see below). The project’s design and resource protection measures include management guidelines for the four terrestrial mollusks with suitable habitat in the project area (*Monadenia chaceana*, *Monadenia troglodytes troglodytes*, *Trilobopsis roperi*, and *Vespericola Shasta*) as well as the Shasta salamander (*Hydromantes shastae*). These measures are consistent with the current May 13, 2014 Survey and Manage direction and these species’ management recommendations (see below). The project Environmental Assessment contains further detail on the proposed action, alternatives, resource protection measures, standard operating procedures, and best management practices for all activities.

Introduction

Guidance under the Northwest Forest Plan (NWFP) and the Shasta-Trinity National Forest Land and Resource Management Plan (Forest Plan) require the Forest Service to analyze projects for potential impacts to Survey and Manage Species.

Current direction regarding the Survey and Manage program requirements was last issued by Regional Foresters’ Kent Connaughton and Randy Moore on May 13, 2014 (USDA-FS 2014).¹ Per this direction, projects must follow the January 2001 ROD standards and guidelines and the December 2003 Annual Species Review list, or meet one or all of the four categories of exemptions from the standards and guidelines as stipulated by Judge Pechman on October 11, 2006 (Pechman 2006).² Those categories are:

- A. Thinning projects in stands younger than 80 years old;
- B. Replacing culverts on roads that are in use and part of the road system, and removing culverts if the road is temporary or to be decommissioned;
- C. Riparian and stream improvement projects where the riparian work is riparian planting, obtaining material for placing in-stream, and road or trail decommissioning; and where the stream improvement work is the placement large wood, channel and floodplain reconstruction, or removal of channel diversions; and
- D. The portions of project involving hazardous fuel treatments where prescribed fire is applied. Any portion of a hazardous fuel treatment project involving commercial logging will remain subject to the survey and management requirements except for thinning of stands younger than 80 years old under subparagraph A. of this paragraph.

¹ This direction was issued pursuant the district court’s remedy order on February 18, 2014 (Conservation Northwest v. Bonnie, W.WA No. C08-1067-JCC)

² Additional information on the Survey and Manage program is available online at the following websites: <http://www.reo.gov/library/reports/RODjan01.pdf> or <http://www.blm.gov/or/plans/surveyandmanage/history.php>

Effects Analysis

This report assesses the proposed project in sufficient detail to determine consistency with the current Survey and Manage requirements and the 2006 Pechman exemption categories. The effects determination and rationale for each Survey and Manage species from the December 2003 Annual Species Review list is summarized in Table 1 below. This analysis is based on information collected from Forest Service wildlife databases, field reviews and surveys of portions of the project area, survey data on the Shasta-McCloud Management Unit, habitat requirements and range information for each species, management recommendations for the species, and the project's proposed activities. The determinations from this analysis apply to all action alternatives.

Amphibians

There are no detections of Shasta salamander recorded for directly within the project area. There is one observation recorded on private land (Nature Conservancy lands) approximately 1.2 miles (straight line) southwest of the project area, though the reliability of this observation is unknown. Another detection is recorded for the base of the McCloud Reservoir approximately 5 miles away, apparently along the same limestone formation that bisects the project area.

Surveys for Shasta salamanders have not been conducted in the project area. Suitable habitat exists along the limestone formation that runs from the northern end of the project area, approximately along the Bald Mountain Jeep Trail to the southwest. The project area is outside of the confirmed range for Shasta salamanders, but the presence of limestone formations, along with detections relatively close to the project boundary, are factors considered for this analysis.

Mollusks

Managing known sites potentially affected by project activities is the requirement for the terrestrial mollusk species that have the potential to be in the project and are listed in Table 1 below. Some species have an additional requirement to conduct pre-disturbance surveys where appropriate, or strategic surveys only. By meeting requirement D of the Pechman exemptions, pre-disturbance surveys for the Survey and Manage mollusks and the Shasta salamander were not necessitated. In addition, the project design and resource protection measures in place for this project will provide protections for these species, such that their habitats will not be meaningfully modified or otherwise made unavailable.

The proposed project will also include actions that align with the management recommendations for the Survey and Manage mollusk species with potential to occur in the project area. Management recommendations for those species are similar to each other and include the following:

- For *Vespericola shasta* (Shasta hesperian), conserve a favorable canopy of riparian hardwoods, woody debris, herbaceous vegetation, and the permanence and aquatic ecology of the springs or streams. As this species seems to be confined to the wet margins of perennial streams where it can find cover under loose rocks, woody debris, or decaying leaves it may be somewhat safer than most terrestrial mollusks from being directly killed by fire (Burke *et al.* 1999).

- For *Monadenia chaceana* (Chace sideband), maintain a food supply of leaf/needle litter and fungi within cool moist environments during the fall and spring active periods. Stable refuge sites such as talus and rocky areas should be provided during dormant periods of summer and winter. These areas provide hibernacula from fire effects and predation. Manage the surrounding vegetation cover to maintain microsite conditions and provide CWD and un-compacted forest litter. This species does not have a strong riparian association (Duncan 2005).
- For *Monadenia troglodytes troglodytes* (Shasta sideband), provide for the conditions necessary to maintain cool moist temperatures during fall and spring, refuge sites for summer and winter aestivation, and a food supply including leaf and needle litter and fungi. This includes maintaining undisturbed talus and vegetative cover. Adjacent forested areas should be managed to mitigate for the drying effects of wind and to provide shade, coarse woody debris, and uncompacted forest litter. Due to the rarity of known populations, sites should be protected from wildfire events (Duncan 2005).
- For *Trilobopsis roperi* (Shasta chaparral), provide for the conditions necessary to maintain cool moist temperatures during fall and spring, refuge sites for summer and winter aestivation, and a food supply including leaf and needle litter and fungi. This includes maintaining undisturbed talus and vegetative cover. Adjacent forested areas should be managed to provide shade, coarse woody debris and uncompacted forest litter. Due to the rarity of known populations, sites should be protected from wildfire events (Duncan 2005).

Riparian Reserves will be treated under all action alternatives, though the primary treatment for these areas will be low-intensity prescribed fire that is allowed to back into riparian units. The project includes design features and protection measures that limit disturbance to potential habitat and maintain microsite habitat conditions (e.g. riparian canopy cover and large coarse wood would be maintained, water quality BMPs, limited disturbance to riparian areas, vegetation, and down wood during thinning and burning operations, and equipment exclusion zones in riparian reserves). This is consistent with Survey and Manage species management recommendations for the mollusks that may occur in these habitats (Burke *et al.* 1999).

The project also includes protection measures that preclude equipment use on limestone and rock outcrops and talus slopes, and maintain microsite habitat conditions such as coarse wood and un compacted forest litter. This is consistent with Survey and Manage species management recommendations for the Shasta salamanders and mollusk species that may occur in these habitats (Burke *et al.* 1999) (Duncan 2005).

Birds

Great gray owls (GGO) are not expected to occur in the project area and pre-disturbance surveys are not required. There is no habitat suitable for GGO reproductive activities in the project area.

No incidental aural or visual detections of GGO have occurred in or near the project area during the project-level northern spotted owl surveys completed since surveys that began in 2015, or any other fieldwork and surveys completed for the project. There are no verifiable observations recorded in or near

the project area (NRIS, CNDDDB records search 2019). The closest known GGO occurrences or nests occur from 55 to 125 miles (Modoc National Forest) away from the project area.

Summary

Category D of the Pechman Exemptions apply to all of the proposed actions. The project area falls outside the range, or contains no suitable habitat for, all Survey and Manage terrestrial fauna species listed on the December 2003 Annual Species Review list except the Shasta hesperian, Chace sideband snail, Shasta sideband, Shasta chaparral, and Shasta salamander (Burke *et al.* 1999, Duncan 2005); see Table 1 below. Project activities, under all action alternatives, may affect individuals, but are not expected to measurably or adversely affect the aforementioned Survey and Manage species.

This determination is based on the following rationale:

- There is only one known Survey and Manage species site in the project area, based on Survey & Manage surveys completed on the Management Unit, and that site will be protected from disturbance.
- Project design features and standard operating procedures limit mechanical equipment use in Riparian Reserves and preclude project activities from limestone habitats and talus slopes.
- Resource protection measures would maintain (manage) and enhance microsite conditions for the four mollusk species with suitable habitat in the project area. This includes limited vegetation disturbance and removal, and soil compaction in suitable habitat.
- Project activities would enhance riparian vegetation conditions by thinning encroaching conifers and decadent brush.
- The project includes provisions for implementing protection measures for terrestrial mollusks and Shasta salamanders in the event of any new discoveries prior to or during project implementation.

Table 1. Determination of effects to December 2003 Annual Species Review Survey and Manage terrestrial and aquatic wildlife species within the range of the Shasta-Trinity National Forest. All Category A and B species require management of known sites.

Common name	Scientific name	Category and Pre-Disturbance Surveys Required?	Effect Determination and Rationale
Shasta salamander	<i>Hydromantes shastae</i>	A – Yes	<p>May Affect, not likely to Measurably Affect: Compliant with Pechman exemptions and 2001 ROD.</p> <p>There are no detections of Shasta salamander recorded for within the project area. Surveys for Shasta salamanders have not been conducted specifically within the project area. Suitable habitat exists along the limestone formation that runs from the northern end of the project area, approximately along the Bald Mountain Jeep Trail to the southwest. The project area is outside of the confirmed range for Shasta salamanders, but the presence of limestone formations, along with detections relatively close to the project boundary, are factors considered for the effects analysis.</p> <p>The project includes protection measures that maintain microsite habitat conditions (talus, CWD) and minimize impacts to vegetation in suitable habitat. RPMs will preclude ground disturbing actions from occurring in limestone, talus and rock outcroppings during times of surface activity; also, no mechanized equipment will be allowed within 300 ft. of these habitats.</p>

Common name	Scientific name	Category and Pre-Disturbance Surveys Required?	Effect Determination and Rationale
Chace sideband snail	<i>Monadenia chaceana</i>	B3 – No Strategic Surveys Only - Also protect new and known sites from grazing	<p>May Affect, not likely to Measurably Affect: Compliant with Pechman exemptions and 2001 ROD.</p> <p>An endemic of northern California and southwest Oregon. There are no known sites in the Lower McCloud Project area and this species was not found during the 1999 to 2010 S&M protocol surveys across the SMMU.</p> <p>This species is associated with forested and open talus/rocky areas. Vegetation types include dry conifer and mixed conifer/hardwood and oaks. Talus piles and outcrops provide refugia.</p> <p>The project includes protection measures that maintain microsite habitat conditions (talus, CWD) and minimize impacts to vegetation in suitable habitat.</p>
Shasta sideband snail	<i>Monadenia troglodytes troglodytes</i>	A – Yes	<p>May Affect, not likely to Measurably Affect: Compliant with Pechman exemptions and 2001 ROD.</p> <p>This species has not been detected in the project area.</p> <p>The project includes protection measures that maintain microsite habitat conditions (talus, CWD) and minimize impacts to vegetation in suitable habitat. RPMs will preclude ground disturbing actions from occurring in limestone, talus and rock outcroppings; also, no mechanized equipment will be allowed with 300 ft. of these habitats.</p>
Wintu sideband snail	<i>Monadenia troglodytes wintu</i>	A – Yes	No Effect: Project area is outside this species range along the Pit River arm of Shasta Lake over to Squaw Creek and at Mountain Gate
Blue-Gray Taildropper slug	<i>Prophysaon coeruleum</i>	A – Yes	No Effect: Project area is outside this species' range of far northern California. Associated with mixed conifer habitats in moist forest conditions.

Common name	Scientific name	Category and Pre-Disturbance Surveys Required?	Effect Determination and Rationale
Shasta chaparral snail	<i>Trilobopsis roperi</i>	A – Yes	<p>May Affect, not likely to Measurably Affect: Compliant with Pechman exemptions and 2001 ROD.</p> <p>This species has not been detected in the project area.</p> <p>Protocol surveys were conducted in 180 acres along the eastern edge of the watershed along the Bald Mountain Jeep trail area from 2001 to 2002 and no target mollusk species were found.</p> <p>This species was detected during surveys conducted in 2007 and 2008 in the McCloud River watershed for the FERC relicensing effort, outside the project area.</p>
Tehama chaparral snail	<i>Trilobopsis tehamana</i>	A – Yes	No Effect: Project area is outside this species' range.
Pressley (Big Bar) hesperian snail	<i>Vespericola pressleyi</i>	A – Yes	No Effect: Project area is outside this species' range of the Trinity River near Big Bar and type localities in proximity

Common name	Scientific name	Category and Pre-Disturbance Surveys Required?	Effect Determination and Rationale
Shasta hesperian snail	<i>Vespericola shasta</i>	A – Yes	<p>May Affect, not likely to Measurably Affect: Compliant with Pechman exemptions and 2001 ROD.</p> <p>This species has been detected on the outer edge of the project area along the Lower McCloud River during surveys conducted in 2007 and 2008 in the McCloud River watershed for the FERC relicensing effort, outside the project area. FERC surveys included suitable habitat within a 16 ft. wide band around the McCloud Reservoir and along 15 miles of the Lower McCloud River downstream from the Reservoir until one mile south of the confluence with Squaw Valley Creek.</p> <p>A large proportion of the project area is above the elevational limits for suitable habitat for this species. Although, potentially suitable habitat is present in the project area in the form of riparian zones, low water seeps, and springs that occur in the drainage bottoms along the perennial waterways.</p> <p>Effects to potential habitat will be avoided due to protective measures built into implementation and because suitable riparian areas will not be meaningfully impacted by prescribed burning.</p> <p>Protection measures will be implemented that maintain microsite habitat conditions along springs and seeps (CWD, water quality BMPs, limited disturbance to riparian areas/riparian vegetation). Equipment is excluded in Reserves within 20 or more feet of channels.</p>
Great gray owl	<i>Strix nebulosa</i>	<p>A – Yes</p> <p>*Though not required in CA Klamath or CA Cascades provinces</p>	<p>No Effect: There is no habitat suitable for nesting; thus no effects during this species' most sensitive time period. In addition, this species has not been aurally or visually detected in the project area during the last six consecutive years of ongoing survey efforts for northern spotted owls, or from 2015-2019 survey efforts, and there are no verifiable observations recorded in or near the project area (CNDDDB, NRIS 2019).</p>

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